

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Matthew W. Witsil on 2/15/2011.

The application has been amended as follows:

2. **The claims have been amended and a complete list is provided below:**

a. List of claims

1. (Currently amended) A clamping or spreading tool, comprising:
 - a push or pull rod to which a movable jaw is fixed;
 - a stationary jaw;
 - a gear mechanism by which the movable jaw is movable towards or away from the stationary jaw by displacement of the push or pull rod in a clamping or spreading direction and by which clamping or spreading forces are applied between the jaws;
 - a lock that blocks displacement of the push or pull rod in an opening direction opposite to the clamping or spreading direction so as to maintain the clamping or spreading forces generated between the jaws; and
 - a force dissipating mechanism for dissipating the clamping or spreading forces stored that allows absorption displacement of the push or pull rod in the

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opening direction along a predetermined absorption path and blocks absorption displacement of the push or pull rod in the opening direction beyond the predetermined absorption path upon release of the lock, said force dissipating mechanism including a release lever to release the lock and an entraining slide element to block the absorption displacement of the push or pull rod in the opening direction beyond the predetermined absorption path upon release of the lock wherein said release lever has a contacting member which is offset and contacts a entraining projection thereby producing said absorption displacement.

2. (Currently amended) The clamping or spreading tool as claimed in claim 1, wherein the force dissipating mechanism is adapted to be activated, ~~especially~~ by an operator such that, upon activation, the absorption displacement of the push or pull rod in the opening direction along the absorption path is allowed independently and, after the absorption displacement, an absorption displacement limitation takes hold automatically.

3. (Previously presented) The clamping or spreading tool as claimed in claim 1, wherein the force dissipating mechanism can be activated only upon release of the blocking effect of the lock.

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4. (Previously presented) The clamping or spreading tool as claimed in claim 1, wherein the force dissipating mechanism can be activated when clamping or spreading forces are held at the lock.

5. (Previously presented) The clamping or spreading tool as claimed in claim 1, wherein the force dissipating mechanism is or remains deactivated when the tool is not tensioned.

6. (Previously presented) The clamping or spreading tool as claimed in claim 1, wherein the lock is shiftable essentially in the opening direction with respect to the stationary jaw, while maintaining its blocking effect, so as to provide the absorption displacement.

7. (Presently presented) The clamping or spreading tool as claimed in claim 1, wherein the lock is arranged in a support in such a way as to be shiftable in the opening direction while its blocking effect is upheld, the support carrying the stationary jaw and holding the push or pull rod for displacement.

8. (Currently amended) The clamping or spreading tool as claimed in claim 6, wherein the lock is shiftable from a resting position in which it is, ~~especially~~ may be forcibly[[,]] adjusted upon activation of the force dissipating mechanism[[,]] into an absorption end position.

9. (Previously presented) The clamping or spreading tool as claimed in claim 6, wherein shiftability of the lock is limited by an abutment formed on the support.
10. (Currently amended) The clamping or spreading tool as claimed in claim 6, wherein the shift distance travelled by the lock during absorption displacement substantially equals the predetermined absorption path.
11. (Currently amended) The clamping or spreading tool as claimed in claim 1, wherein the force dissipating mechanism comprises a drive for shifting the lock, with the push or pull rod-locked to the ~~same, essentially~~ lock in the opening direction.
12. (Currently amended) The clamping or spreading tool as claimed in claim 11, wherein a the drive is to be implemented by an operator ~~is provided~~ and ~~preferably~~ comprises an eccentric bearing for the lock, ~~[[or]]~~ such that at least part of the clamping or spreading forces can be introduced into the lock to be shifted, ~~for implementation of the drive.~~
13. (Previously presented) The clamping or spreading tool as claimed in claim 1, wherein the lock is formed by a plate-type lock which is forcibly canted with respect to the push or pull rod to block displacement of the push or pull rod in the opening direction.

14. (Currently amended) The clamping or spreading tool as claimed in claim [[13]] 1, wherein the force dissipating mechanism comprises two plate-type locks, one of which is shiftable with respect to the stationary jaw essentially in the opening direction for providing the absorption displacement while the forced canting with respect to the push or pull rod is upheld, whereas the other one is arranged stationarily with respect to the stationary jaw, maintaining the forced canting with respect to the push or pull rod.

15. (Previously presented) The clamping or spreading tool as claimed in claim 14, herein the forced canting of the stationary plate-type lock can be lifted before the forced canting of the shiftable plate-type lock.

16. (Previously presented) The clamping or spreading tool as claimed in claim 14, wherein the clamping or spreading forces released upon lifting of the forced canting of the stationary plate-type lock can be introduced into the shiftable plate-type lock such that the shiftable plate-type lock, together with the push or pull rod canted with respect to the same, are shifted from a starting position into and end position at which further shifting is prevented.

17. (Previously presented) The clamping or spreading tool as claimed in claim 14, wherein the shiftable plate-type lock comprises a wedging plate which is forcibly canted to the push or pull rod so that displacement of the push or pull rod in the opening

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direction with respect to the wedging plate is blocked, said wedging plate contacting a movable place for engagement.

18. (Currently amended) The clamping or spreading tool as claimed in claim 17, wherein the wedging plate constitutes an entraining slide element of the gear mechanism designed as a stepping gear, and the movable place for engagement is presented by the location of power transmission from the entraining slide element into a movable, ~~especially~~ swingable actuating arm of the stepping gear.

19. (Currently amended) The clamping or spreading tool as claimed in claim 18, wherein the actuating arm has a mid position at which the actuating arm is positioned when unloaded, a stroke end position into which the actuating arm can be moved when actuated by an operator to displace the push or pull rod in the clamping or spreading direction, and an absorption end position, opposed to the stroke end position, into which the actuating arm can be moved for shifting the entraining slide element, while maintaining the forced canting thereof, and at which the actuating arm strikes against an abutment present on ~~[[the]]~~ a support for providing limitation of the absorption displacement.

20. (Previously presented) The clamping or spreading tool as claimed in claim 1, wherein the force dissipating mechanism comprises a damper which dampens the absorption displacement of the push or pull rod along the absorption path.

21. (Previously presented) The clamping or spreading tool as claimed in claim 20, wherein the damper is activated only when the force dissipating mechanism for absorption displacement of the push or pull rod in the opening direction is activated.

22. (Currently amended) The clamping or spreading tool as claimed in claim 20, further comprising an actuating arm that operatively engages the entraining slide element, and wherein the damper is formed by a centering spring, ~~especially comprising~~ a compression spring adapted to be tensioned by shifting of the lock essentially in the opening direction.

23. (Previously presented) The clamping or spreading tool as claimed in claim 22, wherein the centering spring is disposed between a support which holds the stationary jaw and the actuating arm.

24. (Previously presented) The clamping or spreading tool as claimed in claim 22, wherein the centering spring and a gear spring for canting the entraining slide element are harmonized such that the actuating arm is forcibly positioned in a mid position out of which lifting motion for the gear mechanism contrary to the gear spring and absorption motion for the force dissipating mechanism contrary to the centering spring are allowed.

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25. (Currently amended) The clamping or spreading tool as claimed in claim 22, wherein the centering spring tensioned in the absorption end position of the actuating arm can be relieved of tension by lifting the forced canting of the entraining slide element, the relaxing centering spring, at the same time, ~~especially~~ urging the actuating arm into the mid position.

26. (New) A clamping or spreading tool, comprising:

- a push or pull rod to which a movable jaw is fixed;
- a stationary jaw;
- a gear mechanism by which the movable jaw is movable towards or away from the stationary jaw by displacement of the push or pull rod in a clamping or spreading direction and by which clamping or spreading forces are applied between the jaws;
- a lock that blocks displacement of the push or pull rod in an opening direction opposite to the clamping or spreading direction so as to maintain the clamping or spreading forces generated between the jaws; and
- a force dissipating mechanism for dissipating the clamping or spreading forces stored that allows absorption displacement of the push or pull rod in the opening direction and blocks absorption displacement of the push or pull rod in the opening direction beyond a predetermined distance upon release of the lock, wherein the force dissipating mechanism comprises two plate-type locks, one of which is shiftable with respect to the stationary jaw essentially in the opening

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direction for providing the absorption displacement while the forced canting with respect to the push or pull rod is upheld, whereas the other one is arranged stationarily with respect to the stationary jaw, maintaining the forced canting with respect to the push or pull rod wherein said release lever has a contacting member which is offset and contacts a entraining projection thereby producing said absorption displacement. .

27. (New) A clamping or spreading tool, comprising:

a push or pull rod to which a movable jaw is fixed;

a stationary jaw;

a gear mechanism by which the movable jaw is movable towards or away from the stationary jaw by displacement of the push or pull rod in a clamping or spreading direction and by which clamping or spreading forces are applied between the jaws;

a lock that blocks displacement of the push or pull rod in an opening direction opposite to the clamping or spreading direction so as to maintain the clamping or spreading forces generated between the jaws; and

means for dissipating the clamping or spreading forces stored that allows absorption displacement of the push or pull rod in the opening direction along a predetermined absorption path and blocks absorption displacement of the push or pull rod in the opening direction beyond the predetermined absorption path upon release of the lock.

28. (New) A clamping or spreading tool, comprising:
- a push or pull rod to which a movable jaw is fixed;
 - a stationary jaw;
 - a gear mechanism by which the movable jaw is movable towards or away from the stationary jaw by displacement of the push or pull rod in a clamping or spreading direction and by which clamping or spreading forces are applied between the jaws;
 - a lock that blocks displacement of the push or pull rod in an opening direction opposite to the clamping or spreading direction so as to maintain the clamping or spreading forces generated between the jaws; and
 - a force dissipating mechanism for dissipating the clamping or spreading forces stored that allows absorption displacement of the push or pull rod in the opening direction along a predetermined absorption path and blocks absorption displacement of the push or pull rod in the opening direction beyond the predetermined absorption path upon release of the lock, said force dissipating mechanism including:
 - a release lever to release the lock;
 - an entraining slide element to block the absorption displacement of the push or pull rod in the opening direction beyond the predetermined absorption path upon release of the lock; and

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an actuating arm operatively engaging the entraining slide element, the actuating arm including a pivotable projecting stop for carrying out translatory motion in the longitudinal direction of the push rod to allow shifting of the entraining slide element.

29. (New) The clamping or spreading tool as claimed in claim 28, wherein the actuating arm has a mid position at which the actuating arm is positioned when unloaded, a stroke end position into which the actuating arm can be moved when actuated by an operator to displace the push or pull rod in the clamping or spreading direction, and an absorption end position, opposed to the stroke end position, into which the actuating arm can be moved for shifting the entraining slide element, while maintaining the forced canting thereof, and at which the actuating arm strikes against an abutment present on a support for providing limitation of the absorption displacement.

REASONS FOR ALLOWANCE

3. The following is an examiner's statement of reasons for allowance:

b. The instant invention is neither anticipated nor rendered obvious because the prior art does not disclose a force dissipating mechanism wherein a release lever has a contacting member which is offset and contacts a projection thereby producing said absorption displacement. The new claims incorporate 112 sixth paragraph and including allowable structure that reads over the prior art.

- c. The applicant has provide remarks which are reasons for allowance and the primary examiner agrees with these remarks see below:

Remarks/Arguments

This paper is filed in response to the Office Action dated as mailed January 14, 2010. Claims 1-25 are pending at the time of filing this Amendment, and new claims 26 through 29 have been added, resulting in claims 1-29 being pending. Claims 1, 2, 8, 10, 11, 12, 14, 18, 22, and 25 are amended.

Claim 1 has been amended to recite certain structural elements. Claim 14 is amended to change the dependency. Claims 2, 8, 10, 11, 12, 18, 19, 22, and 25 are amended with editorial changes. Claim 22 is amended to recite an actuating arm.

Claim Rejections – 35 USC § 103

Claims 1-25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,578,837 to Blank et al. in view of U.S. Patent No. 6,474,632 to Liou (Liou I), U.S. Patent No. 6,655,670 to Liou (Liou II) in view of Liou I, and International Publication No. WO 03/013793 to American Tool Companies, Inc. in view of Liou I.

The Examiner asserted that the primary references all disclosed a clamping and spreading tool having a stationary jaw, movable jaw, pull rod, gearing spring, centering spring, slide mechanism, and a lock. The Examiner also asserted that “[i]n regard to the force dissipating mechanism this is merely the structure of the invention because the locks, gears, cants, will all perform these recited functions.” Applicant respectfully

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disagrees with this assertion, with detailed explanation set forth in Applicant's previous response.

Applicants' amended independent claim 1 recites as the final element:

a force dissipating mechanism for dissipating the clamping or spreading forces stored that allows absorption displacement of the push or pull rod in the opening direction along a predetermined absorption path and blocks absorption displacement of the push or pull rod in the opening direction beyond the predetermined absorption path upon release of the lock, said force dissipating mechanism including a release lever to release the lock and an entraining slide element to block the absorption displacement of the push or pull rod in the opening direction beyond the predetermined absorption path upon release of the lock.

The predetermined absorption path is a distance that corresponds to the distance the push or pull rod is allowed to travel when the lock is released and before the rod is stopped from further movement.

As set forth in detail in Applicant's prior office action response, none of the cited references discloses a force dissipating mechanism that (1) allows push or pull rod displacement in the open direction along a predetermined absorption path that has a set end point and (2) blocks further displacement of the push or pull rod beyond the predetermined absorption path. What this also means is that none of the cited references discloses any mechanism that allows just a small movement of the push or

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pull rod to release force exerted on the object being clamped, preventing what might be an explosive propulsion of the rod.

Further, none of the cited references discloses the newly added limitation of an entraining slide element to block the absorption displacement of the push or pull rod in the opening direction beyond the predetermined absorption path upon release of the lock. The Examiner noted in the Response to Arguments of the current Office Action that structure is lacking from the claim; Applicant has added such structure to claim 1, although Applicant believes that the recited functional language serves to precisely define present structural attributes and should be given patentable weight. MPEP 2173.05(g) discusses functional language as follows:

A functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. A functional limitation is often used in association with an element, ingredient, or step of a process to define a particular capability or purpose that is served by the recited element, ingredient or step.

. . . .

In a claim that was directed to a kit of component parts capable of being assembled, the Court held that limitations such as “members adapted to be positioned” and “portions . . . being resiliently dilatable whereby said housing may be slidably positioned” serve to precisely define present structural attributes of interrelated component parts of the claimed assembly. *In re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976).

Claims 2-25 depend either directly or indirectly from allowable, amended claim 1, and are therefore allowable for the same reasons. In addition, claims 2-25 recite features and combinations of features not taught or suggested by the cited art and are also therefore allowable for that reason. In particular, among other claims, Applicant respectfully submits that the cited

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art has not been applied to, and does not teach or suggest the elements of claims 9, 10, and 14-25.

New Claims

Claims 26-29 are new, include features not taught or suggested in the cited art, and are therefore allowable.

Conclusion

In summary, it is submitted that all claims are allowable and that the application is in condition for allowance. If the Examiner has any questions about the present Amendment a telephone interview is requested. If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 13-4365.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEE D. WILSON whose telephone number is 571-272-4499. The examiner can normally be reached on M-TH.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MONICA CARTER can be reached on 571-272-4475. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Ldw
/LEE D WILSON/
Primary Examiner, Art Unit 3727
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